COLUMNAR SECTION

COLORADO ANTHRACITE - CRESTED BUTTE SHEETS

				GENER	ALIZED SECTION FOR THE ANTHRACITE AND CRESTED BUTTE SHEETS. SCALE 1000 FEET - I INCH.		ANTHRACITE - CRESTED BUTTE SHEETS
Period.	FORMATION NAME.	SYMBOLS.	Columnar Section.	THICKNESS IN FEET.	CHARACTER OF ROCKS.		•
EOCENE OR LATER	West Elk breccia.	wb			The upper part is a bedded breccia. The lower part is a friable tuff with a few thin sandstone beds. The material is mainly dark hornblende-andesite and pyroxene-andesite with some non-eruptive debris in the lower part.		Anthracite Range. Porphyrite. Dark shale and sandstone, more or less carbonaceous, in beds, from 1' to 20' thick. Coal, 4" to 6". Dark shale and sandstone, interbedded. Sandstone, 5' to 15'. Coal, 2' 8" to 4'.
CRETACEOUS	Ruby formation.	Kr			Conglomerate, sandstone, and shale in alternating beds; consisting chiefly of igneous debris—andesites and porphyrites with quartz sand intermingled. The basal conglomerate contains chert and quartz pebbles.		Shale and sandstone, interbedded. Sandstone. Shale, carbonaceous, with thin sandstone layers; 30'. Sandstone, slightly carbonaceous; 10' to 30'. Base of the Laramie. Coal Gulch, opposite Baldwin. Sandstone and shale.
			A V & C. St. american symmetry and the same		Quartzose sandstone, with pebbles of quartz, vari-colored jasper and clay		Coal, 3'.
	Ohio formation.	Ko		200	Quartzose sandstone, with pebbles of quartz, vari-colored jasper and clay at the base, forming heavy beds of loose texture and of gray, clouded buff, and red colors.		Arenaceous shale and sandstone 100'.
	Laramie formation.	· KI		2000	Sandstone and shale, with workable coal beds in the lower 400 feet. Quartzose sandstone predominates in the lower half. Somewhat arenaceous shale prevails in the upper half. Plant remains. The coals are anthracite, coking, and dry bituminous.		Coal, 4' 6". Arenaceous shale and clayey sandstone, interbedded; 110'. Coal streak. Sandstone and shale, 40'. Coal, 4' 6". Sandstone, light gray, quartzose, with thin layers of shale; 50" to 80'. Base of the Laramie. Coal streak. Shale and sandstone, 60' Coal streak. Sandstone and shale, interbedded, 150' Coal, 5'. Sandstone, white, 50'-80'.
	Montana formation.	Km Km		2800	In the upper 300 feet prominent fine-grained yellow sandstone corresponding to Fox Hills formation. In the lower 2500 feet leaden gray shale with numerous "lenticular bodies" of limestone, corresponding to the Pierre formation. The entire series is fossiliferous.		
	Niobrara formation.	Kn		100–200	The upper two-thirds gray, calcareous shale. The lower one-third light gray limestone.		Rase of the Laramie.
	Benton formation. Dakota formation.	Kb		150–300 40–300	Black shale. Thin limestone beds near the top. Ironstone. White quartzite. Conglomerate at the base. Local fire clays.	-	
JURATRIAS	Gunnison formation.	Jģ		350-500	The upper two thirds drab, green, yellow, and pink clays, with thin limestone. The base is a heavy white quartzite.		
CARBONIFEROUS	Maroon conglomerate.			2500	Conglomerate and sandstone in heavy beds. The material is chiefly derived from the Archean, but some of the conglomerate contains many limestone pebbles derived from the earlier Carboniferous beds. Occasional thin beds of fossiliferous limestone.		Crested Butte. Coal, 3' 6". Sandstone and shale, interbedded, 140'. Coal, 5' 6". Sandstone and shale, 40'. Coal, 5'. Sandstone, white, 50'-80'. Base of the Laramie.
		Cm			Quartzose conglomerate, grit, and sandstone with varying amount of pebbles derived from the Carboniferous, which sometimes form the bulk of the deposit. Color, yellowish gray. There are thin, interbedded limestone layers. These and the limestone pebbles are fossiliferous.		Anthracite Mesa. Coal thin. Shale and sandstone interbedded, 125' Coal, 3' 6''. Shale and sandstone, 40', Coal, 4' 6''. Sandstone and shale, 60'.
	Weber limestone.	Cw		100-550	Dark gray to black shale with thin limestone carrying black chert. Limestone. The upper third massive, blue and cavernous. The lower	Coal, thin. Sandstone, white, 50'–80' Base of the Laramie.	
,	Leadville limestone.	CI		400-525	Limestone. The upper third massive, blue and cavernous. The lower two-thirds bedded, gray to brown. Dark cherts.		
SILURIAN	Yule limestone.	Sy			At the top 80 feet of green, pink, and yellow shale and thin limestone. The middle portion massive, gray limestone with white chert. The upper two-thirds red quartzite containing glauconite. The lower third		
CAMBRIAN	Sawatch quartzite.	€s		50-350	quartzite with conglomerate at the base; pebbles, of white quartz. Granite, gneiss, and schist.		